AMENDMENT TO THE CLAIMS

1. (currently amended): A method for automated focusing of an electron image, the method comprising:

    determining an energy filter cut-off voltage; and

    adjusting a focusing condition ~~in compensation for~~ of an electron imaging system based on a change in the energy-filter cut-off voltage so as to maintain a focus of the electron image.

2. (original): The method of claim 1, further comprising:

    varying an energy filter voltage to different levels;

    measuring an intensity of detected electrons at each of the different levels; and

    analyzing the intensity data so as to determine the energy filter cut-off voltage.

3. (original): The method of claim 1, wherein the focusing condition comprises a wafer bias voltage, and wherein the wafer bias voltage is varied in correspondence to the change in the energy filter cut-off voltage.

4. (original): The method of claim 1, wherein the focusing condition comprises an objective lens focusing strength.

5. (original): The method of claim 1, wherein the focusing condition comprises an extraction field strength.

6. (original): The method of claim 1, wherein the focusing condition comprises a source voltage level.

7. (original): The method of claim 1, further comprising using a contrast-based focusing procedure for fine focusing of the electron image.

8. (cancelled):

9. (cancelled):

10. (cancelled):

11. (currently amended): A electron beam inspection apparatus, the apparatus including an autofocusing means that comprises:

      means for determining an energy filter cut-off voltage; and

      means for adjusting a focusing condition ~~in compensation for~~ of an electron imaging system based on a change in the energy-filter cut-off voltage so as to maintain a focus of the electron image.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled):

19. (cancelled):

20. (cancelled):

21. (cancelled):

22. (cancelled)

23. (cancelled):